

REMARKS

It is believed by the Applicants that the present claimed invention is patentably distinct over the references cited in the final Office Action of August 27, 2003 .

The Applicants respectfully request that the Examiner consider the remarks presented below, which are directed to those references, prior to issuing an Office Action on the merits of the claimed invention.

Remarks regarding rejection of Claims 1-3, 6, and 8 under 35 USC § 102(b) over Ackerman:

In Figs. 1, 4, and 5 of Ackerman, except for the two end tufts, tufting holes of central row (36) in the lengthwise direction are formed in a vertical direction to tufting surface (32). The tufting holes of side longitudinal rows (37, 37) in the lengthwise direction are inclined toward an inside. The end tufts of row (36) are inclined in directions of the lengthwise direction of the handle.

Tufts of rows (37) appear to lean on tufts of row (36) in Fig. 4. However, the tufts of row (36) are not inclined in directions perpendicular to the lengthwise direction and therefore do not meet the requirements of Claim 1.

Ackerman does not disclose two tufts implanted so as to support one another, inclining in directions perpendicular to lengthwise directions of the handle as in Claim 1 of the present application .

Moreover, the tufting holes described in Ackerman are circular holes, and there is no description, as found in Claim 1, wherein elliptic or rectangular tufting holes along the direction of handle length are inclined so as to have tufts implanted therein support one another.

Accordingly, with regard to Claim 1 of the present application, the Applicants respectfully submit that there is no basis for rejection under 35 USC §102 (b) over Ackerman.

Moreover, Claims 3, 6, and 8 (Claim 2 was deleted) are dependent from Claim 1 and thus have no basis for rejection under 35 USC §102 (b), for the reasons discussed above.

Remarks regarding rejection of Claims 1-3, 6, and 8 under 35 USC §102 (b) over Strasser:

In Strasser, tufting holes of tufts (2) and (4) are formed in a vertical direction to a tufting surface. Tufting holes of tufts (3) and (5) are inclined in directions perpendicular to lengthwise directions of the handle length.

However, as shown in Fig. 2, inclining tufts (3) and (5) do not support one another. Judging from only Fig. 3, tufts (3) and (5) appear to support one another, however, this is not correct. As shown in Fig. 2, tufts (3) and (5) do not support one another, and there is no description concerning such supporting one another in the specification.

In Strasser, there is no description describing or suggesting a toothbrush according to Claim 1 of the present application, having elliptic or rectangular tufting holes along the direction of the handle length and inclined in directions perpendicular to the lengthwise direction of the handle length, toward a tufting surface, so as to have tufts implanted therein support one another.

Accordingly, with regard to Claim 1 of the present application, the Applicants respectfully submit that there is no basis for rejection under 35 USC 102 §(b) over Strasser.

Moreover, Claims 3, 6, and 8 (Claim 2 was deleted) are dependent from Claim 1 and thus there is no basis for rejection under 35 USC §102 (b), for the reasons discussed above.

Remarks regarding rejection of Claims 1 and 7 under 35 USC § 103 (a) in view of a combination of Ackerman, Strasser and Oishi:

As mentioned above in Ackerman and Strasser, there is no description or suggestion of a toothbrush according to Claim 1 of the present application, having elliptic or rectangular tufting holes along the direction of handle length which are inclined in directions perpendicular to the lengthwise direction of the handle length, toward a tufting surface, so as to have tufts implanted therein support one another.

In Oishi, “elliptical tufting holes” and “tufts in V-shape” appear to be disclosed. However, there is no description or suggestion of a toothbrush according to Claim 1 of the present application, as recited in the previous paragraph.

In general, for the purpose of mechanically removing plaque with a toothbrush, the important considerations are: 1) how effectively a filament reaches a portion where plaque exists, and 2) how effectively the filament can remove plaque in the portion where the filament reaches. According to the above-mentioned constitution of Claim 1 of the present application, with regard to 1), because the edge of converging blocks comprising tufts and supporting one another form a converging shape, the obtained effect is that the edge of converging blocks can be inserted into interdental space, a cervical portion of the tooth, and tight spaces of the occlusal surfaces; and with regard to 2), tufts supporting one another supply tuft stiffness so as to obtain stable cleaning ability in the inclining direction, and have the effect to powerfully wipe away food residue and plaque that are accumulated.

A combination of Ackerman, Strasser and Oishi, does not describe or suggest the above-mentioned constitution according to Claim 1 of the present application, nor the effect thereby concerning the above-mentioned combination of 1) and 2). Therefore, it is respectfully submitted that Claim 1 is not obvious in view of Ackerman, Strasser and Oishi.

Moreover, Claim 7 is dependent from Claim 1, and thus there is no basis for rejection under 35 USC §103, for the reasons discussed above.

Remarks regarding rejection of Claims 4 and 13 under 35 USC §103(a) in view of a combination of Ackerman, Strasser and Nicolas:

As mentioned above in Ackerman and Strasser, there is no description or suggestion of a toothbrush according to Claim 1 of the present application, having elliptic or rectangular tufting holes along the direction of handle length which are inclined in directions perpendicular to the lengthwise direction of the handle length, toward a tufting surface, so as to have tufts implanted therein support one another.

In Nicholas, “a toothbrush with tufts inclining toward a surface of tuft base” and “a brush head that has a width of 12 mm and a length of 20 mm” appear to be disclosed. However, there is no description or suggestion of a toothbrush according to Claim 1 of the present application, as recited in the previous paragraph.

The Applicants respectfully submit that a combination of Ackerman, Strasser and Nicholas, does not disclose or suggest the claimed toothbrush of the present application, and that Claims 4 and 13, dependent from Claim 1, are not obvious under 35 USC §103, for the reasons discussed above.

Remarks regarding rejection of Claims 5, 14 and 15 under 35 USC §103(a) in view of a combination of Ackerman, Strasser and Curtis:

As mentioned above in Ackerman and Strasser, there is no description or suggestion of a toothbrush according to Claim 1 of the present application, having elliptical or rectangular tufting holes along the direction of handle length are inclined in directions perpendicular to the lengthwise direction of the handle length, toward a tufting surface, so as to have tufts implanted therein support one another.

In Curtis, “a distance at the base between of the paired tufts to be about 1.65 mm”, “rectangular tufting holes that accommodate rectangular tufts”, “the dimensions of the tuft are 1.193 mm on the shortest side and 1.52 mm on the longest side”, and “the longest side of the tuft holes is in lengthwise direction of the handle”, appear to be disclosed. However, there is no description or suggestion of a toothbrush having elliptical or rectangular tufting holes along the direction of handle length which are inclined in directions perpendicular to the lengthwise direction of the handle length, toward a tufting surface, so as to have tufts implanted therein support one another.

It is respectfully submitted that a combination of Ackerman, Strasser and Curtis, with no description concerning a toothbrush as defined above, does not suggest the toothbrush of Claims 5, 14, and 15, which are dependent from Claim 1, and thus the claims are not obvious under 35 USC §103.

Remarks regarding rejection of Claim 9 under 35 USC §103(a) in view of a combination of Ackerman, Strasser and Solanki:

As mentioned above in Ackerman and Strasser, there is no description or suggestion of a toothbrush according to Claim 1 of the present application having elliptic or rectangular tufting holes along the direction of handle length which are inclined in directions perpendicular to the lengthwise direction of the handle length, toward a tufting surface, so as to have tufts implanted therein support one another.

In Solanki, a toothbrush with tufts offset from each other appears to be disclosed. However, there is no description of a toothbrush as defined in Claim 1 and recited in the previous paragraph.

It is respectfully submitted that a combination of Ackerman, Strasser and Solanki, does not describe or suggest the above-mentioned toothbrush of Claim 9 of the present application, which is dependent from Claim 1, and thus the claim is not obvious under 35 USC §103.

Remarks regarding rejection of Claims 10 and 11 under 35 USC §103(a) in view of a combination of Ackerman, Strasser and Chen:

In Ackerman and Strasser, there is no description concerning a toothbrush according to Claim 1 of the present application, having elliptic or rectangular tufting holes along the direction of the handle length, which are inclined in directions perpendicular to the lengthwise direction of the handle length, toward a tufting surface, so as to have tufts implanted therein support one another.

In Chen, “a method of folding the bristle tuft in half, placing in a tuft cavity and driving an anchor into the tuft cavity to hold the bristles tuft in the tuft cavity”, and “the anchor can be positioned parallel to the short side of the tuft cavity” appear to be disclosed. However, there is no description or suggestion of a toothbrush as presently claimed in Claim 1 and recited in the previous paragraph.

A combination of Ackerman, Strasser, and Chen, does not describe or suggest the above-mentioned toothbrush of Claims 10 and 11 of the present application. The Applicants respectfully submit that Claims 10 and 11, dependent from Claim 1, are not obvious under 35 USC §103, for the reasons discussed above.

Remarks regarding rejection of Claim 12 under 35 USC §103(a) in view of a combination of Ackerman, Strasser, Chen and Solanki:

In Ackerman, Strasser, Chen, and Solanki, there is no description concerning a toothbrush according to Claim 1 of the present application, having elliptic or rectangular tufting holes along the direction of the handle length are inclined in directions perpendicular to lengthwise direction of the handle length, toward a tufting surface so as to have tufts implanted therein support one another.

A combination of these documents does not describe or suggest the above-mentioned toothbrush of Claim 1 of the present application. The Applicants respectfully submit that Claim 12, dependent from Claim 1, is not obvious under 35 USC §103, for the reasons discussed above.

In view of the amendments to the claims and the above remarks, it is believed that Claims 1 and 3-16 are patentable and in condition for allowance. Allowance of those claims is respectfully requested.

If there are any issues of a minor nature remaining, the Examiner is urged to contact the Applicants' attorney, the undersigned, at Area Code (202) 659-2930.

In the event that any fees are due in connection with this paper, please charge our Deposit Account No. 01-2340.

Respectfully submitted,

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